

The stability of colloidal U(VI) nanoparticles under alkaline conditions in the presence of quartz, orthoclase, biotite, and cement phases

Rosemary Hibberd

3rd year PhD, School of Chemistry, The University of Manchester

I am grateful to the Mineralogical Society of Great Britain and Ireland for awarding me a travel bursary which enabled me to present my research at the 26th Goldschmidt conference in Yokohama, Japan, in June 2016. This conference included talks on interdisciplinary research ranging from atomic scale radionuclide incorporation into minerals, to understanding the behaviour of radionuclides in both natural analogue sites and within geological disposal scenarios.

Goldschmidt is a prominent international conference and therefore provided a platform for me to both present my work to, and meet, leading international scientists. As well as providing an opportunity to catch up with old friends and colleagues.

Since my research is applicable to the behaviour of uranium both within a cementitious GDF sited in hard-rock, and out into the far-field of, I presented within the 'Mineralogy and Geochemistry for the Safe Management of Nuclear Waste Including Waste Issues at the Fukushima Site' session. This was a great fit and provided a good audience and stimulating discussion.

Networking opportunities were abundant through-out the week from the ice-breaker, to the numerous posters sessions, and of course the conference banquet. These conversations, along with the pioneering research presented during the sessions, have helped develop my understanding of the area enormously.

